

Southern California ERC Summary Annual Center Report for 2011-2012

A. Center Overview and Administration: The Southern California NIOSH Education and Research Center (SCERC) consists of the Center Administration and Planning Core and seven training programs including three core academic programs: Industrial Hygiene (IH), Occupational and Environmental Health Nursing (OEHN), and Occupational Medicine (OM); and four center-wide programs: Outreach, Continuing Education (CE), Pilot Project Research Training (PPT), and a Targeted Research Training (TRT). The TRT includes a special research training addressing work organization and psychosocial risk factors. Degrees offered by ERC programs include MPH, MS, MSN, PhD, DrPH, and residency and other professional certificates. The Center represents a coordinated, interdisciplinary set of professional education, continuing education, research and outreach activities that continue to have a positive impact on the Region's and Nation's occupational health and safety practice.

1. Coordination and Integration of ERC programs: OM is located at University of California at Irvine (UCI); all other programs and Center Administration are housed at the University of California Los Angeles (UCLA). The administrative core was led by Dr. Niklas Krause, MD, PhD, MPH, Professor in the EHS department of the School of Public Health at UCLA. The Deputy Director is Dr. Dean Baker of UCI. He represented our ERC at the February 15/16 AUPOHS meeting in Washington, D.C. The seven-member **Executive Committee** consists of the Director, Deputy Director, Program Directors, and Center Administrator. The **External Advisory Board** includes 19 members from all states in Region IX representing each of the core disciplines of our ERC plus labor and CE. The Executive Committee collaboratively led **five mandatory interdisciplinary activities:** One activity is the annual ERC interdisciplinary plant visit and workshop. In 2012 trainees toured an utility water treatment and wastewater recycling facility of the City of Santa Monica and used it as a case study to understand the role of the different occupational health and safety disciplines. The annual interdisciplinary dinner meeting with all trainees, Advisory Board Members, ERC and COEH faculty, included a training in root cause analysis and a presentation by the new Chief of Cal/OSHA, Dr. Ellen Widess. The 2011 Fall 3-Day Student Orientation with ERC faculty, incoming and senior students included presentations of trainee research projects, internships, a plant site visit, and an opportunity for students to interact with Advisory Board members and other professionals to discuss essential skills and career paths for OHS professionals. One day was spent at UCI's occupational health clinic with practical introductions to spirometry, audiology, and fitness testing followed by a clinical case conference. Quarterly Interdisciplinary Case Conferences are being integrated into mandatory courses of all core academic programs both at UCLA and UCI. The Center also offered a new 4-hour webinar in Ethics for Health and Safety Professionals in the spring.

2. Competing renewal application and NIOSH virtual site visit: Eight Executive Committee and four External Advisory Board in-person meetings were held to revise our strategic plan, to implement recommendations of NIOSH reviewers, and to prepare the 5-year competitive renewal application. We focused on strategic changes in IH and OEHN curriculums, assessing needs and feasibility for expanding doctoral training in allied disciplines such as epidemiology, and plans to strengthen center-wide activities such as interdisciplinary coordination, diversity recruitment, and the expansion of outreach activities in Region IX. Members of the Executive Committee, External Advisory Board, and trainees from each academic program participated in a NIOSH February site visit. The renewal application was prepared.

B. Center Programs:

1. Industrial Hygiene: The IH Program completed its 27th year as NIOSH-supported program and 18th year as a fully ABET accredited program. Reaccreditation of the MS and MPH programs by ABET-ASAC for at least 2 years. Dr. Kennedy transferred from a research faculty position to a teaching position. Former Director Hinds continued to assist in teaching EHS252D, the course on aerosols for which Professor Zhu is now the faculty in charge. Dr. Froines continued to instruct EHS 200A, the introductory overview of environmental health for our students who major in environmental health sciences.

2. Occupational Medicine: The OM residency program was reviewed by the ACGME in 2010 and received full re-accreditation for the maximum period of five years. For more than a decade, 100 percent of entering residents have graduated from the program, taken the APBM board certification in OM, and now practice as OM specialists. Ninety-three percent of the graduates taking the board exam have

become board certified in OM. The program graduates account for a substantial proportion of the board certified OM specialists in Southern California. In this year, we trained three residents, graduated two residents, and enrolled three residents for a total of four residents for the next training year.

The program also provides a CME approved Grand Rounds on OM as part of the ERC outreach mission and had increased clinical training opportunities for trainees in the other ERC academic programs to enhance interdisciplinary collaboration.

The faculty provided regional, national and international leadership in the field. Dr. Baker served as the president of the International Society for Environmental Epidemiology -- the largest international professional society in this field. Dr. Schnall was appointed as chair of the local organizing committee for the APA-NIOSH conference scheduled in Spring 2013. Appointed by the governor, Dr. Luderer has served as the chair of the California State Environmental Contaminant Biomonitoring Program Scientific Guidance Panel. Dr. Israel became president-elect and continued as a board member of the Western Occupational and Environmental Medicine (WOEMA). Dr. Baker, Dr. Israel, and Dr. Kornhauser served on the conference planning committee for the 2012 ACOEM conference.

3. Occupational and Environmental Health Nursing: The SCERC OEHN program continued its solid record of graduating Masters prepared OEHN Adult Nurse Practitioners and OEHN Administrators. We graduated seven students in 2012. Graduates are working in the following OS&H positions at a regional level: employee health in manufacturing and distribution; risk management in hospital setting; consulting in OS&H; and managerial positions in healthcare where they are utilizing OS&H knowledge to improve worker health and safety. Progress on two SCERC OEHN initiatives of note during this year includes successful implementation of our first year of the revised advanced practice nursing curriculum in Adult/Gerontology Nurse Practitioner in Occupational Environmental Health. This curriculum is designed to enhance gerontology content in addition to maintaining occupational and environmental health content in clinical adult nurse practitioner preparation and leadership competency. Students report that the content in managing older workers who can have complex chronic health conditions is extremely useful. We also concentrated on outreach and recruitment for the PhD research program. Two Masters prepared UCLA nurse practitioner graduates were recruited to enter the PhD program fall 2012.

OEHN faculty and students were active at state, regional, and national levels holding Board positions in the California State Association of Occupational Health Nurses (Thomas, Robbins), planning and evaluation committee for the AAOHN conference (Stone), presenting at the AAOHN conference (Stone, Thomas), guest speaker for the Office of the Navajo Nation Scholarship & Financial Assistance program (Samuels-Nakamura), planning committee and presenting at the WOEMA conference (Thomas), and invited speaker on work and lifestyle exposures related to reproductive health at the Environmental Mutagen Society annual meeting. In addition, Drs. Thomas, Robbins, and Searle-Leach were active in presenting the OEHN program at recruiting sessions at UCLA and in providing guest lectures within the School of Nursing at which we disseminated OS&H content.

3. Pilot Project Research Training: The objective of the Southern California ERC Pilot Project Research Training Program is to enhance the research training opportunities for ERC and TPG trainees, junior faculty, and young investigators in Region IX by providing funding for pilot research projects. These pilot research projects may be small studies or short-term research projects to explore feasibility, to collect preliminary data, or to develop plans for more extensive research projects supported by other more long-term funding. During the 2011-12 period we received 7 high quality applications and were able to fund four of them.. Since the beginning of the PPT in 1999 through the 2010-12 cycle we have recommended for funding 53 projects that have included 34 Trainees, including ERC and TPG, 16 junior faculty, and 3 new investigators. During the last 5 years five peer-reviewed articles have been published and seven grants, totaling \$2,473,000, have been obtained building on PPT research projects.

4. Targeted Research Training: The Targeted Research Training (TRT) Program is a joint program of the UCLA and UC Irvine campuses. The Program uses several strategies to enhance research training and awareness of NORA, including (a) provide technical research support within the SCERC; (b) coordinate interdisciplinary research; (c) train graduate students who do projects with a NORA focus; and (d) organize and teach outreach programs related to NORA research. A majority of the funding for the TRT

Program has been used to provide partial stipends for doctoral research training of students in the Industrial Hygiene program. During the past training year, the TRT program provided stipend support to two IH doctoral students who were doing research on NORA priority topics.

The TRT program has provided research training in ERC courses. A focus of the training has been the SCERC initiative in work organization and workplace psychosocial factors. This initiative led to research projects that have provided an opportunity for SCERC trainees to participate in field research. An example of outreach meetings includes presentations at the California Work and Health Study Group to present NORA-related research on work organization and psychosocial factors. The TRT program this year provided research training to a doctoral student from Columbia, a post-masters researcher from Mexico, and a visiting professor from Korea. The program conducted a symposium on occupational health in the USA for a delegation of 30 public health officials and university faculty from China. There has been significant growth in this component of the TRT Program with very little funding support.

5. Continuing Education: The Continuing Education Program of the SCERC continues to be the premier continuing health and safety education program in Region IX, along with our sister ERC at UC Berkeley. In March 2012, the program was re-accredited by the California Medical Association/Institute for Medical Quality as a Continuing Medical Education (CME) provider. Training has been provided in Southern California and Arizona locations, as well as by webinars attended from locations as distant as Israel. The Southern California ERC constantly updates its offerings and curriculum to be able to offer the most up-to-date best practices and emerging hazards trainings. In 2011/12 we offered 118 courses and trained 1,501 participants – industrial hygiene (122), occupational medicine (241), occupational health nursing (322), occupational safety (474), ergonomics (289), as well two courses for all disciplines (53). Of those, 53 attended hazardous substance training courses in spite of not having a grant to support the program. Increased use of webinars enhanced our ability to serve the Region IX, and beyond.

The CE and Outreach Advisory Committee and the CME Advisory Committee have continued to meet regularly and to provide valuable input into program development.

Several new courses have been added including Hazardous Materials Manager in training (HMMT)/Fundamentals of Hazardous Materials, Certified Safety Professional (CSP) Review, Workplace Risk Assessment, Blood-borne Pathogens. Sampling and Instrumentation was expanded from one day to two. A two-day symposium in Phoenix, Arizona has been in development for a year and is scheduled to take place in November 2012. Two webinars were added on the 2012 Hazard Communication Standard (GHS)- one for health care, and another version for other health and safety professionals.

6. Outreach: We continue to work with professional associations such as ASSE and AIHA sections in Arizona, Nevada and Hawaii about taking some of our courses to their locations to increase the reach of the Center's training programs. The Arizona Chapter of ASSE endorsed our upcoming symposium. We are working with the TPG at the University of Arizona on collaborative projects including bringing their miner safety training to California. A new grant from Advanced Sterilization Products (ASP) has supported webinars for health care workers; more than 100 trainees have already attended the GHS webinar and a second webinar on Hand Hygiene is being developed.

Under the ASP grant we have convened an advisory committee that is helping to set out the program for three-year continuation grant proposal for health care workers and, in particular, workers in the decontamination, disinfection and sterilization of medical instruments and equipment; and aging workforce including reproductive impacts. The program is also seeking opportunities to submit a number of grant proposals in order to be able to conduct training in workplace violence prevention; hearing loss prevention among people working on farms; and miner safety.

We are expanding the curriculum and participation of health care professionals in our Ethics for Health and Safety Professionals Webinar and in 2012 it has become a required activity for ERC-trainees.

2011-12 Academic Core Program Training (ERC supported students only)

Program	IH	OMR	OEHN	Total
Graduates	4	2	7	13
Trainees	11	4	8	23